MILTECH™ 9132

Managed Military Grade Embedded Ethernet Switch - 28 x 10/100/1000TX Ports + 2 x Gigabit (SGMII) + 2 x 10Gigabit (SFI) Fiber Ports

FEATURES

The MILTECH 9132 is specifically designed for complex traffic applications featuring IEEE-1588 Capabilities suitable for rugged military mobile tactical platforms, which require network centric interfaces.

With 28 triple-speed (10/100/1000Mbps) ports (with magnetics) + 2 Interfaces SGMII + 2 interfaces 10G fiber SFI the MILTECH 9132 features both L2/L3 network switching and static routing capabilities, including virtual LANS (VLANS), traffic prioritization/ QoS, IPv4/IPv6 support, and bandwidth aggregation. It supports all the latest networking protocols for redundancy, security, multicast, and management.

With the industry's smallest footprint, the MILTECH 9126 measures only 185x95mm to offer performance and combination of size, weight, and power (SWaP) in the industry, saving valuable real estate for devices that makes mobile platforms highly effective.

Conformally coated and with board-to-board connectors, it can easily be integrated as a module-based network building block in any military-grade communications platform. The MILTECH 9132 board level communication solution will withstand working temperatures of -45°C to +85°C and will comply with MIL-STD-810 & MIL STD461 (when incorporated in a suitable enclosure).

SPECIFICATIONS

ETHERNET PORTS	• 24 x 10/100/1000TX ports managed Ethernet Switch
PHYSICAL	• Dimensions: 185mm (L) x 95mm (W) • Dimensions: 7.28" (L) x 3.74"(W) • Weight: 450g • Mounting Holes: 8 x NC 4-40
NETWORKING	• Energy efficient Ethernet, IEEE 802.3az • Wire-speed hardware-based 32 ports Gigabit Ethernet Switch – L2 & L3 capabilities • L3-Static Routing capabilities • 1588V2 PTP with two-step clock • Multicasting (IGMP Snooping), GARP, GMRP, MLD and GVRP up to 8K groups for both IPv4 and IPv6 • Broadcasting and flooding Control up to 8K Groups • 802.1q Tagged based VLAN up to 4K VLAN groups • Bridge Support for VLAN Q-in-Q • Link Aggregation 802.3ad • WEB, CLI, Telnet , SNMP V2/V3 management • QoS Multi-Layer Classifier: 802.1p, EtherType, VLAN-ID, IPv4/6 DSCP/ToS, and UDP/TCP ports & ranges traffic classification • DSCP remarking for both IPv4 and IPv6 frames • Multiple ACLs per port for optimal usage of Content Aware Policers • Storm controllers for flooded broadcast, multicast and unicast • Spanning Tree (802.1d), RSTP (802.1w) and multiple Spanning Tree (802.1S) for fast recovery rings • Up to 4K egress VLAN tag operations

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SPECIFICATIONS

NETWORKING **QUALITY OF SERVICE**	• QoS Multi-Layer Classifier: 802.1p, EtherType, VLAN-ID, IPv4/6 DSCP/ToS, and UDP/TCP ports & ranges traffic classification. • Per port WFQ and Strict Queuing scheduling • DSCP remarking for both IPv4 and IPv6 frames • Ingress policer and ingress shaper per port with 500Kbps granularity • Egress shaper per port with 500Kbps granularity • Full-duplex flow control (IEEE802.3X) and half-duplex backpressure
SECURITY	• Security via Radius Authentication 802.1x, Port / MAC access control • Port Security • Per port ingress and egress port mirroring • Mirroring per VLAN • Private VLAN support per VLAN (Isolated and Promiscuous ports) • Advanced ACL through hardware based match patterns • Content Aware Policers for generic MAC, ARP, IPv4, IPv6 protocols • Content Aware Policers actions are permit/deny, police, count • Multiple ACLs per port for optimal usage of Content Aware Policers • Storm controllers for flooded broadcast, multicast and unicast • Secure boot.
CONNECTORS	• 2 Board to board connector : TE P/N: 3-1827231-6 • Per port LED indication (Link/Act, Speed) via serial GPIO
STANDARDS	• MIL-STD-461E | MIL-STD-810F GM | IP67. When encorporated in a suitable enclouser
PERFORMANCE	• 253.4 Mpps wire speed forwarding rate • 128 Gbps maximum forwarding bandwidth • 8K MAC Address
POWER	• 5Vdc-28Vdc • Power Consumption: 25W Typical
ELECTROMAGNETIC	MIL-STD-461E Electromagnetic compatibility • CE-102, CS-114, CS-115, CS-116, RE-102, RS-103 when incorporated in a suitable enclouser
SHOCK/VIBRATION/ HUMIDITY	• MIL-STD-810F; 501.4I | 501.4II | 502.4I | 502.4II | 507.4 | 500.4II | 514 | 516I | 516VI | 514.5 | 512.4 when incorporated in a suitable enclouser
COOLING	• No Moving Parts. Passive Cooling.
OPERATING TEMP	• -45ºC to +85ºC (-49ºF to +185ºF) Cold Start-Up
STORAGE TEMP	• -45ºC to +85ºC (-49ºF to +185ºF)

* Currently not supported – software upgrade option.

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A

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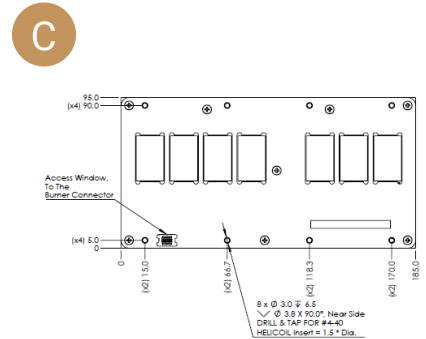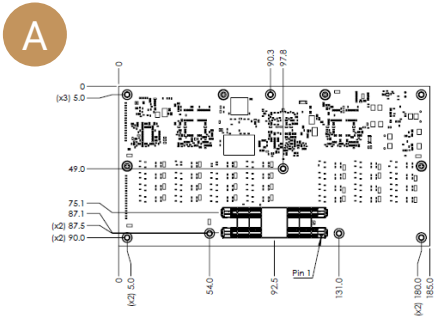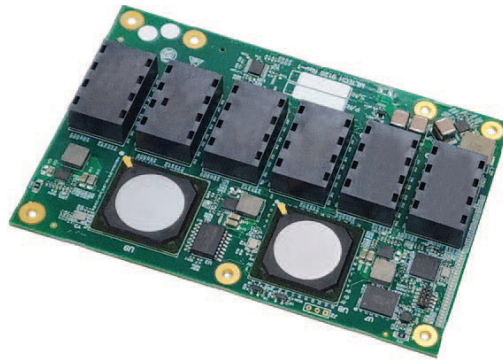
ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-9132-000	Board Level Ethernet Managed Switch, 28 x 1G Copper ports + 2 x 1G SGMII + 2 x SFI interfaces
1-9132EV-000	Board Level Ethernet Managed Switch, 28 x 1G Copper ports + 2 x 1G SGMII + 2 x SFI interfaces + Cooling Plate
1-9132EV-000	Evaluation board for MILTECH 9132
1-CP-9132-000	Cooling base plate for MILTECH 9132

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